



0300

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/605,783  
Source: OIPF  
Date Processed by STIC: 8-25-00

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR FURTHER INFORMATION, PLEASE TELEPHONE MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

# Raw Sequence Listing Error Summary

## ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/605,783

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☒ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.  
This may occur if your file was retrieved in a word processor after creating it.  
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 ☐ Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.  
This may occur if your file was retrieved in a word processor after creating it.  
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 ☒ Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 ☐ Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 ☐ Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.  
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 ☐ Variable Length Sequence(s) \_\_\_\_ contain n's or Xaa's which represented more than one residue.  
As per the rules, each n or Xaa can only represent a single residue.  
Please present the maximum number of each residue having variable length and  
Indicate in the (ix) feature section that some may be missing.
- 7 ☐ PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) \_\_\_\_\_. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 8 ☐ Skipped Sequences (OLD RULES) Sequence(s) \_\_\_\_ missing. If intentional, please use the following format for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO:X:  
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")  
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:  
This sequence is intentionally skipped  
  
Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 ☐ Skipped Sequences (NEW RULES) Sequence(s) \_\_\_\_ missing. If intentional, please use the following format for each skipped sequence.  
<210> sequence id number  
<400> sequence id number  
000
- 10 ☒ Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence-Listing.  
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 ☐ Use of <213>Organism (NEW RULES) Sequence(s) \_\_\_\_ are missing this mandatory field or its response.
- 12 ☒ Use of <220>Feature (NEW RULES) Sequence(s) \_\_\_\_ are missing the <220>Feature and associated headings.  
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"  
Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 ☐ PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).  
Instead, please use "File Manager" or any other means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:38

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

3 <110> APPLICANT: Xu, Jiangchun  
 4 Dillon, Davin C.  
 5 Mitgham, Jennifer L.  
 6 Harlocker, Susan L.  
 7 Jiang, Yuqui  
 8 Henderson, Robert A.  
 9 Kaloš, Michael D.  
 10 Fanger, Gary R.  
 11 Retter, Marc W.  
 12 Stolk, John A.  
 13 Day, Craig H.  
 14 Vedvick, Thomas S.  
 15 Carter, Darrick  
 16 Li, Samuel  
 17 Wang, Aijun  
 18 Skeiky, Yasir A.W.  
 19 Hepler, William  
 21 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY AND  
 22 DIAGNOSIS OF PROSTATE CANCER  
 24 <130> FILE REFERENCE: 210121.42716C16  
 C--> 26 <140> CURRENT APPLICATION NUMBER: US/09/605,783  
 C--> 27 <141> CURRENT FILING DATE: 2000-06-27  
 29 <160> NUMBER OF SEQ ID NOS: 835  
 31 <170> SOFTWARE: FastSEQ for Windows Version 3.0

**Does Not Comply  
 Corrected Diskette Needed**

#### ERRORED SEQUENCES

676 <210> SEQ ID NO: 26  
 677 <211> LENGTH: 820  
 678 <212> TYPE: DNA  
 679 <213> ORGANISM: Homo sapien  
 681 <220> FEATURE:  
 682 <221> NAME/KEY: misc\_feature  
 683 <222> LOCATION: (1)...(820)  
 684 <223> OTHER INFORMATION: n = A,T,C or G  
 686 <400> SEQUENCE: 26

W--> 687	anattantac agtghtaatct tttcccagag gtgtgtanag ggaacggggc ctagaggcat	60
W--> 688	cccanagata ncttatanca acagtgtctt gaccaagagc tgctggggcac atttcctgca	120
689	gaaaagggtgg cgggtcccat cactctctct ctcccatagc catcccagag ggggtgagtag	180
W--> 690	ccatcangcc ttcgggtggga gggagtcang gaaacaacan accacagagc anacagacca	240
W--> 691	ntgatgacca tgggctgggag cgagcctctt cctgnaccg ggggtggcana nganagccta	300
W--> 692	nctgaggggt cactactataa acgttaacga ccnagatnan cacctgcttc aagtgcaccc	360
W--> 693	ttcctacctg acnaccagn accnnnaact gngcctggg gacagcctg ggancagcta	420
W--> 694	acnnagcact cacctgcccc cccatggcgg tncgctctcc tggctcctgnc aagggaagct	480
W--> 695	ccctgttggg attncgggga naccaagga nccccctcct ccactgtga aggaaaaann	540
W--> 696	gatggaattt tnccttccg gccnntcccc tcttcttta cagccccct nntactctc	600

RAW SEQUENCE LISTING  
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Input Set : A:\42716c16.app  
Output Set: N:\CRF3\08252000\I605783.raw

W--> 697 tccctctntt ntctcgnenc accttttacc cennnatttc ccttnattga tcggannctn  
W--> 698 ganattccac tnnccctnc cntcnatcng naanacnaaa nactntctna cccnggggat  
E--> 699

660  
720

maybe exceeded  
allowed # of  
spaces per line  
(72)

ggggnccctcg ntcacccctct ctttttctnct accnccnntt ctttgcctct ccttngatca

780 tccaaccntc gntggccntn cccccccnnn tcc

7203 <210> SEQ ID NO: 378

7204 <211> LENGTH: 1719

7205 <212> TYPE: PRT

7206 <213> ORGANISM: Homo sapien

7208 <400> SEQUENCE: 378

7209 Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser Ser Val Lys Lys  
7210 1 5 10 15  
7211 Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Cys Arg Cys Phe  
7212 20 25 30  
7213 Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp  
7214 35 40 45  
7215 His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp  
7216 50 55 60  
7217 Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val  
7218 65 70 75 80  
7219 Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Asn  
7220 85 90 95  
7221 Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys Cys Arg Gly Ser  
7222 100 105 110  
7223 Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe  
7224 115 120 125  
7225 Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu Asp Lys Leu His  
7226 130 135 140  
7227 Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met  
7228 145 150 155 160  
7229 Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln Lys Arg Thr Ala  
7230 165 170 175  
7231 Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys Leu Leu  
7232 180 185 190  
7233 Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr  
7234 195 200 205  
7235 Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met  
7236 210 215 220  
7237 Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn  
7238 225 230 235 240  
7239 Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys  
7240 245 250 255  
7241 Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly  
7242 260 265 270  
7243 Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val  
7244 275 280 285  
7245 Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr  
7246 290 295 300  
7247 Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile  
7248 305 310 315 320  
7249 Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu

Hard return here

(Also, may be  
possible "wrapped  
nucleics". See #1  
on Error Summary  
Sheet)

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

7250                               325                               330                               335
7251 Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
7252                               340                               345                               350
7253 Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
7254                               355                               360                               365
7255 Ser Ser Glu Asn Ser Asn Pro Glu Asn Val Ser Arg Thr Arg Asn Lys
7256                               370                               375                               380
7257 Pro Arg Thr His Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser
7258                               385                               390                               395                               400
7259 Ser Val Lys Lys Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys
7260                               405                               410                               415
7261 Cys Arg Cys Phe Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly
7262                               420                               425                               430
7263 Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys
7264                               435                               440                               445
7265 Met Gly Lys Trp Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly
7266                               450                               455                               460
7267 Lys Ser Asn Val Gly Ala Ser Gly Asp His Asp Ser Ala Met Lys
7268                               465                               470                               475                               480
7269 Thr Leu Arg Asn Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys
7270                               485                               490                               495
7271 Cys Arg Gly Ser Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp
7272                               500                               505                               510
7273 Asp Ser Ala Phe Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu
7274                               515                               520                               525
7275 Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp
7276                               530                               535                               540
7277 Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln
7278                               545                               550                               555                               560
7279 Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val
7280                               565                               570                               575
7281 Val Lys Leu Leu Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn
7282                               580                               585                               590
7283 Lys Lys Arg Thr Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu
7284                               595                               600                               605
7285 Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp
7286                               610                               615                               620
7287 Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys
7288                               625                               630                               635                               640
7289 Leu Met Ala Lys Ala Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys
7290                               645                               650                               655
7291 Asn Lys His Gly Leu Thr Pro Leu Leu Gly Val His Glu Gln Lys
7292                               660                               665                               670
7293 Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala
7294                               675                               680                               685
7295 Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly
7296                               690                               695                               700
7297 Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser
7298                               705                               710                               715                               720

```

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Input Set : A:\42716c16.app  
Output Set: N:\CRF3\08252000\I605783.raw

```

7299 Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser
7300              725              730              735
7301 His His His Val Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln
7302              740              745              750
7303 Met Leu Lys Ile Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys
7304              755              760              765
7305 Leu Thr Ser Glu Glu Glu Ser Gln Arg Phe Lys Gly Ser Glu Asn Ser
7306              770              775              780
7307 Gln Pro Glu Lys Met Ser Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp
7308 785              790              795              800
7309 Arg Glu Val Glu Glu Glu Met Lys Lys His Glu Ser Asn Asn Val Gly
7310              805              810              815
7311 Leu Leu Glu Asn Leu Thr Asn Gly Val Thr Ala Gly Asn Gly Asp Asn
7312              820              825              830
7313 Gly Leu Ile Pro Gln Arg Lys Ser Arg Thr Pro Glu Asn Gln Gln Phe
7314              835              840              845
7315 Pro Asp Asn Glu Ser Glu Glu Tyr His Arg Ile Cys Glu Leu Val Ser
7316              850              855              860
7317 Asp Tyr Lys Glu Lys Gln Met Pro Lys Tyr Ser Ser Glu Asn Ser Asn
7318 865              870              875              880
7319 Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu Glu Ser Gln Arg Leu
7320              885              890              895
7321 Glu Gly Ser Glu Asn Gly Gln Pro Glu Leu Glu Asn Phe Met Ala Ile
7322              900              905              910
7323 Glu Glu Met Lys Lys His Gly Ser Thr His Val Gly Phe Pro Glu Asn
7324              915              920              925
7325 Leu Thr Asn Gly Ala Thr Ala Gly Asn Gly Asp Asp Gly Leu Ile Pro
7326              930              935              940
7327 Pro Arg Lys Ser Arg Thr Pro Glu Ser Gln Gln Phe Pro Asp Thr Glu
7328 945              950              955              960
7329 Asn Glu Glu Tyr His Ser Asp Glu Gln Asn Asp Thr Gln Lys Gln Phe
7330              965              970              975
7331 Cys Glu Glu Gln Asn Thr Gly Ile Leu His Asp Glu Ile Leu Ile His
7332              980              985              990
7333 Glu Glu Lys Gln Ile Glu Val Val Glu Lys Met Asn Ser Glu Leu Ser
7334              995              1000              1005
7335 Leu Ser Cys Lys Lys Glu Lys Asp Ile Leu His Glu Asn Ser Thr Leu
7336              1010              1015              1020
7337 Arg Glu Glu Ile Ala Met Leu Arg Leu Glu Leu Asp Thr Met Lys His
E--> 7338 1025              1030              1035              1040
7339 Gln Ser Gln Leu Pro Arg Thr His Met Val Val Glu Val Asp Ser Met
7340              1045              1050              1055
7341 Pro Ala Ala Ser Ser Val Lys Lys Pro Phe Gly Leu Arg Ser Lys Met
7342              1060              1065              1070
7343 Gly Lys Trp Cys Cys Arg Cys Phe Pro Cys Cys Arg Glu Ser Gly Lys
7344              1075              1080              1085
7345 Ser Asn Val Gly Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr
7346              1090              1095              1100
7347 Leu Arg Ser Lys Met Gly Lys Trp Cys Arg His Cys Phe Pro Cys Cys

```

*Invalid amino acid  
numbering.*

*At the beginning  
of line place  
number this way:*

*Arg Glu  
1025*

*At end of line  
place number this  
way:*

*Lys His  
1040*

*The number cannot  
be under two amino  
acids.*

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Input Set : A:\42716c16.app  
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E--> 7348 1105          1110          1115          1112
7349 Arg Gly Ser Gly Lys Ser Asn Val Gly Ala Ser Gly Asp His Asp Asp
7350          1125          1130          1135
7351 Ser Ala Met Lys Thr Leu Arg Asn Lys Met Gly Lys Trp Cys Cys His
7352          1140          1145          1150
7353 Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Lys Val Gly Ala Trp
7354          1155          1160          1165
7355 Gly Asp Tyr Asp Asp Ser Ala Phe Met Glu Pro Arg Tyr His Val Arg
7356          1170          1175          1180
7357 Gly Glu Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val
E--> 7358 1185          1190          1195          120
7359 Pro Arg Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys
7360          1205          1210          1215
7361 Lys Asp Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly
7362          1220          1225          1230
7363 Asn Ser Glu Val Val Lys Leu Leu Asp Arg Arg Cys Gln Leu Asn
7364          1235          1240          1245
7365 Val Leu Asp Asn Lys Lys Arg Thr Ala Leu Ile Lys Ala Val Gln Cys
7366          1250          1255          1260
7367 Gln Glu Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro
E--> 7368 1265          1270          1275          128
7369 Asn Ile Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Ile Tyr
7370          1285          1290          1295
7371 Asn Glu Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp
7372          1300          1305          1310
7373 Ile Glu Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Val
7374          1315          1320          1325
7375 His Glu Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala
7376          1330          1335          1340
7377 Asn Leu Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala
E--> 7378 1345          1350          1355          136
7379 Val Cys Cys Gly Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln Asn
7380          1365          1370          1375
7381 Ile Asp Val Ser Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr
7382          1380          1385          1390
7383 Ala Val Ser Ser His His His Val Ile Cys Gln Leu Leu Ser Asp Tyr
7384          1395          1400          1405
7385 Lys Glu Lys Gln Met Leu Lys Ile Ser Ser Glu Asn Ser Asn Pro Glu
7386          1410          1415          1420
7387 Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Phe Lys Gly
E--> 7388 1425          1430          1435          144
7389 Ser Glu Asn Ser Gln Pro Glu Lys Met Ser Gln Glu Pro Glu Ile Asn
7390          1445          1450          1455
7391 Lys Asp Gly Asp Arg Glu Val Glu Glu Glu Met Lys Lys His Glu Ser
7392          1460          1465          1470
7393 Asn Asn Val Gly Leu Leu Glu Asn Leu Thr Asn Gly Val Thr Ala Gly
7394          1475          1480          1485
7395 Asn Gly Asp Asn Gly Leu Ile Pro Gln Arg Lys Ser Arg Thr Pro Glu
7396          1490          1495          1500

```

Same  
as  
previous  
page

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Input Set : A:\42716c16.app  
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7397 Asn Gln Gln Phe Pro Asp Asn Glu Ser Glu Glu Tyr His Arg Ile Cys  
 E--> 7398 1505      1510      1515      152  
 7399 Glu Leu Val Ser Asp Tyr Lys Glu Lys Gln Met Pro Lys Tyr Ser Ser  
 7400      1525      1530      1535  
 7401 Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu  
 7402      1540      1545      1550  
 7403 Ser Gln Arg Leu Glu Gly Ser Glu Asn Gly Gln Pro Glu Lys Arg Ser  
 7404      1555      1560      1565  
 7405 Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp Arg Glu Leu Glu Asn Phe  
 7406      1570      1575      1580  
 7407 Met Ala Ile Glu Glu Met Lys Lys His Gly Ser Thr His Val Gly Phe  
 E--> 7408 1585      1590      1595      160  
 7409 Pro Glu Asn Leu Thr Asn Gly Ala Thr Ala Gly Asn Gly Asp Asp Gly  
 7410      1605      1610      1615  
 7411 Leu Ile Pro Pro Arg Lys Ser Arg Thr Pro Glu Ser Gln Gln Phe Pro  
 7412      1620      1625      1630  
 7413 Asp Thr Glu Asn Glu Glu Tyr His Ser Asp Glu Gln Asn Asp Thr Gln  
 7414      1635      1640      1645  
 7415 Lys Gln Phe Cys Glu Glu Gln Asn Thr Gly Ile Leu His Asp Glu Ile  
 7416      1650      1655      1660  
 7417 Leu Ile His Glu Glu Lys Gln Ile Glu Val Val Glu Lys Met Asn Ser  
 E--> 7418 1665      1670      1675      168  
 7419 Glu Leu Ser Leu Ser Cys Lys Lys Glu Lys Asp Ile Leu His Glu Asn  
 7420      1685      1690      1695  
 7421 Ser Thr Leu Arg Glu Glu Ile Ala Met Leu Arg Leu Glu Leu Asp Thr  
 7422      1700      1705      1710  
 7423 Met Lys His Gln Ser Gln Leu  
 7424      1715  
 7680 <210> SEQ ID NO: 383  
 7681 <211> LENGTH: 155  
 7682 <212> TYPE: PRT  
 7683 <213> ORGANISM: Homo sapiens  
 7685 <400> SEQUENCE: 383  
 7686 Met Ala Gly Val Arg Asp Gln Gly Gln Gly Ala Arg Trp Pro His Thr  
 7687      5      10      15  
 7688 Gly Lys Arg Gly Pro Leu Leu Gln Gly Leu Thr Trp Ala Thr Gly Gly  
 7690      20      25      30  
 7692 His Cys Phe Ser Ser Glu Glu Ser Gly Ala Val Asp Gly Ala Gly Gln  
 7693      35      40      45  
 7695 Lys Lys Asp Arg Ala Trp Leu Arg Cys Pro Glu Ala Val Ala Gly Phe  
 7696      50      55      60  
 7698 Pro Leu Gly Ser Asp Cys Arg Glu Gly Gly Arg Gln Gly Cys Gly Gly  
 7699      65      70      75      80  
 7701 Ser Asp Asp Glu Asp Asp Leu Gly Val Ala Pro Gly Leu Ala Pro Ala  
 7702      85      90      95  
 7704 Trp Ala Leu Thr Gln Pro Pro Ser Gln Ser Pro Gly Pro Gln Ser Leu  
 7705      100      105      110  
 7707 Pro Ser Thr Pro Ser Ser Ile Trp Pro Gln Trp Val Ile Leu Ile Thr  
 7708      115      120      125

*Same*



RAW SEQUENCE LISTING  
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Input Set : A:\42716c16.app  
Output Set: N:\CRF3\08252000\I605783.raw

7710 Glu Leu Thr Ile Pro Ser Pro Ala His Gly Pro Pro Trp Leu Pro Asn  
7711 130 135 140  
7713 Ala Leu Glu Arg Gly His Leu Val Arg Glu  
E--> 7714 145 150 154  
9515 <210> SEQ ID NO: 477  
9516 <211> LENGTH: 141  
9517 <212> TYPE: PRT  
9518 <213> ORGANISM: Homo sapiens  
9520 <400> SEQUENCE: 477  
9521 Met Asp Gly His Thr Asp Ile Trp Arg Asn His Met Asp Thr Pro Pro  
9522 5 10 15  
9524 His Tyr His Arg Asp Thr Asp Thr Arg Arg His His His Met Asp Thr  
9525 20 25 30  
9527 Leu Ser His Tyr His Arg Asp Thr Arg His His Thr Val Thr Trp Thr  
9528 35 40 45  
9530 His His His Thr His Glu His Thr Asp Thr Leu Pro Tyr Gly His Trp  
9531 50 55 60  
9533 His Thr His Cys His Thr Val Thr Trp Thr His Leu His Thr Ile Thr  
9534 65 70 75 80  
9536 Pro Pro His Thr Leu Pro Val Asp Thr Arg Thr His Arg His Cys His  
9537 85 90 95  
9539 Thr Asp Thr Gln Asn Thr Val Thr Arg Arg His His His Ala Asp Thr  
9540 100 105 110  
9542 Pro Pro Leu Trp Cys Arg Leu Asn Tyr Pro Ala Gly Gly Thr Ala Val  
9543 115 120 125  
E--> 9545 Ala Tyr Ser Cys Leu Ser Asp Trp Leu Ser Pro Gln 140  
9546 130 135  
9549 <210> SEQ ID NO: 478  
9550 <211> LENGTH: 144  
9551 <212> TYPE: PRT  
9552 <213> ORGANISM: Homo sapiens  
9554 <400> SEQUENCE: 478  
9555 Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln  
9556 5 10 15  
9558 Ser His Gly His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr  
9559 20 25 30  
9561 Gly Glu Ile Thr Trp Thr His His Thr Ile Thr Gly Thr Gln Thr  
9562 35 40 45  
9564 His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Gly Thr  
9565 50 55 60  
9567 Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr  
9568 65 70 75 80  
9570 Pro Thr His Cys His Met Asp Thr Gly Thr His Thr Ala Thr Leu Ser  
9571 85 90 95  
9573 His Gly His Thr Ser Thr Pro Ser His His His Thr His Cys Leu Trp  
9574 100 105 110  
9576 Thr Gln Gly His Thr Asp Thr Val Thr Gln Ile His Lys Thr Leu Ser  
9577 115 120 125  
9579 His Gly Asp Ile Thr Met Gln Ile His His His Ser Gly Ala Val

Length of sequence differs  
155 listed, actual count:  
154

141 listed  
actual count: 140

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

E--> 9580 130 135 140

9583 <210> SEQ ID NO: 479  
 9584 <211> LENGTH: 223  
 9585 <212> TYPE: PRT  
 9586 <213> ORGANISM: Homo sapiens  
 9588 <400> SEQUENCE: 479  
 9589 Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln  
 9590 5 10 15  
 9592 Ser His Glu His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr  
 9593 20 25 30  
 9595 Gly Glu Ile Thr Leu Thr His His His Thr Ile Thr Gly Thr Gln Thr  
 9596 35 40 45  
 9598 His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr  
 9599 50 55 60  
 9601 Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr  
 9602 65 70 75 80  
 9604 Pro Thr His Cys His Met Asp Thr Ala Thr His Thr Ala Thr Leu Ser  
 9605 85 90 95  
 9607 His Gly His Thr Ser Ile Pro Ser His His His Thr His Cys His Val  
 9608 100 105 110  
 9610 Asp Thr Arg Thr His Arg His Cys His Thr Asp Thr Gln Asn Thr Val  
 9611 115 120 125  
 9613 Thr Arg Arg His His His Ala Asp Thr Pro Pro His Gly His Ser Thr  
 9614 130 135 140  
 9616 Arg His Ser Ala Thr Gln Ile His His His Thr Glu Met Arg Thr His  
 9617 145 150 155 160  
 9619 Cys His Thr Asp Thr Thr Thr Ser Leu Pro His Phe His Val Ser Ala  
 9620 165 170 175  
 9622 Gly Gly Val Gly Pro Thr Thr Leu Gly Ser Asn Arg Glu Ile Thr Trp  
 9623 180 185 190  
 9625 Thr Tyr Ser Glu Gly Lys Ile Phe Phe Tyr Phe Leu Gly Asn Gln Ala  
 9626 195 200 205  
 9628 Arg Leu Cys Leu Lys Lys Arg Lys Lys Lys Gln Tyr Thr Val  
 9629 210 215 220 222

E--> 9629 210 215 220 222

9632 <210> SEQ ID NO: 480  
 9633 <211> LENGTH: 145  
 9634 <212> TYPE: PRT  
 9635 <213> ORGANISM: Homo sapiens  
 9637 <400> SEQUENCE: 480  
 9638 Met Glu Pro Tyr Arg Gly Asn Glu Gln Pro Ser Gln Glu Gln Gly Val  
 9639 5 10 15  
 9641 Cys Cys Leu Trp Gly Leu Gln Ser Leu Pro Gln Gly Ser Tyr Val Thr  
 9642 20 25 30  
 9644 Val Gly Phe Leu Val Val Lys Arg Gln Thr Ile Gly Arg Leu Glu Arg  
 9645 35 40 45  
 9647 Asp Phe Met Phe Lys Cys Arg Lys Gln Pro Gly Leu Pro Pro Ser Gly  
 9648 50 55 60  
 9650 Leu Cys Leu Leu Trp Pro Trp Pro Asn Leu Glu Phe Gly Arg Arg Gln  
 9651 65 70 75 80

144 listed  
 143 found

223 listed  
 222 found

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

9653 Asp Arg Leu Thr Trp Ser Ser Val Ser Val Ala Gly Val Cys Ala Cys  
 9654 85 90 95  
 9656 Arg Ala Arg Pro Gly Trp Leu Gly Glu Gln Pro Ala Thr Ser Ala Gly  
 9657 100 105 110  
 9659 Val Arg Leu Glu Gln Val Glu Gln Pro Pro Ala His Pro Leu Gln Glu  
 9660 115 120 125  
 9662 Ala Gly Val Ala Arg Phe Pro Arg Pro Glu Trp Val Pro Pro Asn Gly  
 9663 130 135 140  
 E--> 9663 130 140  
 9669 <210> SEQ ID NO: 481  
 9670 <211> LENGTH: 168  
 9671 <212> TYPE: PRT  
 9672 <213> ORGANISM: Homo sapiens  
 9674 <400> SEQUENCE: 481  
 9675 Met His Gly Pro Gln Val Leu Ala Arg Cys Ser Glu Cys Ala Cys Pro  
 9676 5 10 15  
 9678 Ala Leu Ala Ala Thr Ser Ala Gly Val Arg Leu Glu Gly Val Asp Arg  
 9679 20 25 30  
 9681 Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys Ser His Ser  
 9682 35 40 45  
 9684 Leu Ser Gly Cys His Leu Met Ala Asp Gly Ala Lys Ala Leu Gly Lys  
 9685 50 55 60  
 9687 Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Thr Asp Val Pro  
 9688 65 70 75 80  
 9690 Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser Ser Trp Arg  
 9691 85 90 95  
 9693 Ala Leu Ala Glu Val Thr Gly Cys Ser Leu Gly Pro Leu Gly Leu Ala  
 9694 100 105 110  
 9696 Gln His Ala Gln Ala Ser Val Leu Leu Cys Tyr Lys Trp Ser His  
 9697 115 120 125  
 9699 Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr Ala Ala Phe  
 9700 130 135 140  
 9702 Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu Trp Ala Ser  
 9703 145 150 155 160  
 9705 Trp Leu Ser Arg Gly Arg Pro  
 9706 165  
 E--> 9706 165  
 9709 <210> SEQ ID NO: 482  
 9710 <211> LENGTH: 144  
 9711 <212> TYPE: PRT  
 9712 <213> ORGANISM: Homo sapiens  
 9714 <400> SEQUENCE: 482  
 9715 Met Glu Pro Tyr Arg Gly Asn Lys Lys Gln Val Gln Glu Lys Gly Val  
 9716 5 10 15  
 9718 Pro Cys Leu Trp Gly Ser Ser Pro Cys Leu Arg Cys His Met Ala Leu  
 9719 20 25 30  
 9721 Arg Ala Ser Trp Leu Pro Gly Gly Gly Pro Gln Ala Ile Leu Gly Arg  
 9722 35 40 45  
 9724 Thr Leu Cys Ser Ser Ala Glu Ser Ser Gln Asp Cys His Pro Gly Gly  
 9725 50 55 60  
 9727 Pro Ser Ile Ala Leu Ala Lys Pro Cys Arg Gly Val Trp Leu Leu Phe

145 listed  
 144 found

168 listed  
 167 found

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
TIME: 12:21:39

Input Set : A:\42716c16.app  
Output Set: N:\CRF3\08252000\I605783.raw

9728 65 70 75 80  
9730 Glu Pro Ala Trp Pro Pro Trp His Ala Arg Ala Pro Gly Ala Gly Thr  
9731 85 90 95  
9733 Leu Leu Arg Val Cys Leu Ser Cys Leu Gly Cys His Leu Cys Gly Gly  
9734 100 105 110  
9736 Ala Ser Gly Gly Gly Pro Ala Thr Asn Leu Thr Gln Ser Arg Lys  
9737 115 120 125  
9739 Trp Met Ala Met Phe Pro Gln Pro Glu Trp Leu Pro Pro Asp Gly  
E--> 9740 130 135 140 143  
9743 <210> SEQ ID NO: 483  
9744 <211> LENGTH: 144  
9745 <212> TYPE: PRT  
9746 <213> ORGANISM: Homo sapiens  
9748 <400> SEQUENCE: 483  
9749 Met Glu Thr Gln Arg Gly Asn Lys Gln Arg Ala Gln Glu Gln Gly Val  
9750 5 10 15  
9752 Cys Cys Leu Trp Gly Ser Ser Pro Cys Leu Gly Ser Tyr Gly Thr Ala  
9753 20 25 30  
9755 Gly Phe Leu Val Ala Lys Arg Arg Thr Thr Gly Leu Leu Glu Asp  
9756 35 40 45  
9758 Phe Thr Phe Lys Cys Arg Lys Gln Pro Lys Leu Pro Ser Met Arg Leu  
9759 50 55 60  
9761 Ser Leu Leu Trp Pro Trp Arg Asp Leu Lys Phe Val Pro Arg Gln Asp  
9762 65 70 75 80  
9764 Lys Leu Thr Arg Ser Ser Val Ser Val Ala Gly Ala Tyr Ala Cys Arg  
9765 85 90 95  
9767 Ala Gly Pro Gly Trp Leu Lys Glu Gln Pro Ala Thr Ser Ala Arg Val  
9768 100 105 110  
9770 Arg Leu Val Gln Ala Glu His Pro Pro Pro His Pro Leu Glu Glu Val  
9771 115 120 125  
9773 Gly Met Ala Arg Phe Pro Gln Pro Glu Cys Leu Pro Pro Tyr Cys  
E--> 9774 130 135 140 143  
10291 <210> SEQ ID NO: 523  
10292 <211> LENGTH: 254  
10293 <212> TYPE: PRT  
10294 <213> ORGANISM: Artificial Sequence  
10296 <220> FEATURE:  
10297 <223> OTHER INFORMATION: Made in a lab  
10299 <400> SEQUENCE: 523  
10300 Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile  
10301 1 5 10 15  
10302 Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile  
10303 20 25 30  
10304 Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu  
10305 35 40 45  
10306 Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln  
10307 50 55 60  
10308 Trp Val Leu Ser Ala Thr His Cys Phe Gln Asn Ser Tyr Thr Ile Gly  
10309 65 70 75 80

144 listed  
143 found

144 listed  
143 found

> more specific source of  
genetic material needed for  
artificial sequence  
See # 12 on

Error Summary  
Sheet.

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

10310 Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met  
 10311 85 90 95  
 10312 Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu  
 10313 100 105 110  
 10314 Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu  
 10315 115 120 125  
 10316 Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala  
 10317 130 135 140  
 10318 Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Ala Asn Gly Arg  
 10319 145 150 155 160  
 10320 Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu  
 10321 165 170 175  
 10322 Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys  
 10323 180 185 190  
 W--> 10324 Ala Gly Gly Gln Xaa Gln Xaa Asp Ser Cys Asn Gly Asp Ser Gly  
 10325 195 200 205  
 10326 Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly  
 10327 210 215 220  
 10328 Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu  
 10329 225 230 235 240  
 10330 Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser  
 E--> 10331 245 250 245 250  
 10332 <210> SEQ ID NO: 525  
 10354 <211> LENGTH: 254  
 10355 <212> TYPE: PRT  
 10356 <213> ORGANISM: Homo sapien  
 10358 <400> SEQUENCE: 525  
 10359 Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile  
 10360 1 5 10 15  
 10361 Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile  
 10362 20 25 30  
 10363 Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu  
 10364 35 40 45  
 10365 Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln  
 10366 50 55 60  
 10367 Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly  
 10368 65 70 75 80  
 10369 Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met  
 10370 85 90 95  
 10371 Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu  
 10372 100 105 110  
 10373 Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu  
 10374 115 120 125  
 10375 Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala  
 10376 130 135 140  
 10377 Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg  
 10378 145 150 155 160  
 10379 Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu  
 10380 165 170 175

No <220> to <223>  
 features for "Xaa's"  
 in sequences. See  
 #10 on Error  
 Summary sheet.

delete

incorrect amino acid  
 numbering

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

10381 Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys  
 10382 180 185 190  
 10383 Ala Gly Gly Gln Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly  
 10384 195 200 205  
 10385 Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly  
 10386 210 215 220  
 10387 Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu  
 10388 225 230 235 240  
 10389 Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser  
 10390 245 250  
 10416 <210> SEQ ID NO: 527  
 10417 <211> LENGTH: 321  
 10418 <212> TYPE: PR1  
 10419 <213> ORGANISM: Homo sapiens  
 10421 <400> SEQUENCE: 527  
 10422 Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile  
 10423 5 10 15  
 10425 Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser  
 10426 20 25 30  
 10428 Met Tyr Val Val Ala Met Phe Gly Asn Cys Ile Val Val Phe Ile Val  
 10429 35 40 45  
 10431 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met  
 10432 50 55 60  
 10434 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile  
 10435 65 70 75 80  
 10437 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Phe Glu Ala Cys  
 10438 85 90 95  
 10440 Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr  
 10441 100 105 110  
 10443 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro  
 10444 115 120 125  
 10446 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly  
 10447 130 135 140  
 10449 Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu  
 10450 145 150 155 160  
 10452 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser  
 10453 165 170 175  
 10455 Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu  
 10456 180 185 190  
 10458 Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val  
 10459 195 200 205  
 10461 Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val  
 10462 210 215 220  
 10464 Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys  
 10465 225 230 235 240  
 10467 Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly  
 10468 245 250 255  
 10470 Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg  
 10471 260 265 270

Delete

321 listed  
 320 found

RAW SEQUENCE LISTING      DATE: 08/25/2000  
 PATENT APPLICATION: US/09/605,783      TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

10473 Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
10474      275      280      285
10476 Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
10477      290      295      300
10479 Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys
E--> 10480 305      310      315      320
10558 <210> SEQ ID NO: 532
10559 <211> LENGTH: 293
10560 <212> TYPE: PRT
10561 <213> ORGANISM: Homo sapiens
10563 <400> SEQUENCE: 532
10564 Met His Leu Ser Phe Pro Ala Phe Leu Pro Pro Trp Met Asp Arg Gly
10565      5      10      15
10567 Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp His Asn Asp Ser Ser
10568      20      25      30
10570 Val Lys Thr Leu Gly Ser Lys Arg Cys Lys Trp Cys Cys His Cys Phe
10571      35      40      45
10573 Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val Val Ala Trp Gly Asp
10574      50      55      60
10576 Tyr Asp Asp Ser Ala Phe Met Asp Pro Arg Tyr His Val His Gly Glu
10577      65      70      75      80
10579 Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg
10580      85      90      95
10582 Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Arg Asp
10583      100      105      110
10585 Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser
10586      115      120      125
10588 Glu Val Val Lys Leu Val Leu Asp Arg Arg Cys Gln Leu Asn Val Leu
10589      130      135      140
10591 Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala Val Gln Cys Gln Glu
10592 145      150      155      160
10594 Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile
10595      165      170      175
10597 Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Val Tyr Asn Glu
10598      180      185      190
10600 Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu
10601      195      200      205
10603 Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Ile His Glu
10604      210      215      220
10606 Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu
10607 225      230      235      240
10609 Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys
10610      245      250      255
10612 Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu Glu Gln Asn Val Asp
10613      260      265      270
10615 Val Ser Ser Gln Asp Leu Glu Arg Arg Pro Glu Ser Met Leu Phe Leu
10616      275      280      285
10618 Val Ile Ile Met
E--> 10619 290      292

```

293 listed  
 292 found

RAW SEQUENCE LISTING  
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DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set : N:\CRF3\08252000\I605783.raw

```

10643 <210> SEQ ID NO: 534
10644 <211> LENGTH: 267
10645 <212> TYPE: PRT
10646 <213> ORGANISM: Homo sapiens
10648 <400> SEQUENCE: 534
10649 Met Tyr Lys Leu Gln Cys Asn Asn Cys Ala Thr Asn Gly Ala Thr Glu
10650          5          10          15
10652 Arg Lys Gln Ala Ala Gly Ser Gly Ala Gly Tyr Ala Leu Pro Ser Ala
10653          20          25          30
10655 Leu Gln Ser Met Pro Gln Gly Ser Tyr Ala Thr Ala Arg Phe Leu Val
10656          35          40          45
10658 Ala Lys Arg Pro Thr Thr Gly His Leu Glu Lys Glu Phe Met Phe His
10659          50          55          60
10661 Cys Arg Lys Gln Pro Gly Ser Pro Ser Arg Gly Leu Gly Leu Leu Trp
10662          65          70          75          80
10664 Pro Trp Pro Asp Ile Glu Phe Val Pro Arg Gln Asp Lys Leu Thr Gln
10665          85          90          95
10667 Ser Ser Val Leu Val Pro Gln Ile Cys Ala Cys Gln Thr Arg Pro Asn
10668          100         105         110
10670 Trp Leu Asn Glu Gln Pro Ala Thr Ser Ala Gly Val Arg Leu Glu Glu
10671          115         120         125
10673 Val Asp Gln Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys
10674          130         135         140
10676 Ser His Ser Leu Ser Gly Cys His Leu Met Ala Asp Ile Ala Lys Ala
10677          145         150         155         160
10679 Leu Gly Lys Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr
10680          165         170         175
10682 Asp Val Pro Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser
10683          180         185         190
10685 Ser Trp His Thr Leu Ala Glu Val Thr Gly Cys Ser Leu Ser Pro Leu
10686          195         200         205
10688 Ser Leu Ala Gln His Ala Gln Ala Ser Val Leu Leu Leu Cys Tyr Lys
10689          210         215         220
10691 Trp Ser His Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr
10692          225         230         235         240
10694 Ala Ala Phe Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu
10695          245         250         255
10697 Trp Ala Ser Trp Leu Pro Arg Gly Arg Pro
10698          260         265
E--> 10925 <210> SEQ ID NO: 537
10926 <211> LENGTH: 1229
10927 <212> TYPE: PRT
10928 <213> ORGANISM: Homo sapiens
10930 <400> SEQUENCE: 537
10931 Met Leu Pro Val Tyr Gln Glu Val Lys Pro Asn Pro Leu Gln Asp Ala
10932          5          10          15
10934 Asn Leu Cys Ser Arg Val Phe Phe Trp Trp Leu Asn Pro Leu Phe Lys
10935          20          25          30
10937 Ile Gly His Lys Arg Arg Leu Glu Glu Asp Asp Met Tyr Ser Val Leu

```

listed  
266  
267  
found



RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

10938          35          40          45
10940 Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu Leu Gln Gly Phe Trp
10941          50          55          60
10943 Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala Gln Lys Pro Ser Leu
10944 65          70          75          80
10946 Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser Tyr Leu Val Leu Gly
10947          85          90          95
10949 Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val Ile Gln Pro Ile Phe
10950          100         105         110
10952 Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr Asp Pro Met Asp Ser
10953          115         120         125
10955 Val Ala Leu Asn Thr Ala Tyr Ala Thr Val Leu Thr Phe Cys
10956          130         135         140
10958 Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr Phe Tyr His Val Gln
10959 145         150         155         160
10961 Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys His Met Ile Tyr Arg
10962          165         170         175
10964 Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly Lys Thr Thr Gly
10965          180         185         190
10967 Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn Lys Phe Asp Gln Val
10968          195         200         205
10970 Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro Leu Gln Ala Ile Ala
10971          210         215         220
10973 Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile Ser Cys Leu Ala Gly
10974 225         230         235         240
10976 Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln Ser Cys Phe Gly Lys
10977          245         250         255
10979 Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr Phe Thr Asp Ala Arg
10980          260         265         270
10982 Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile Arg Ile Ile Lys Met
10983          275         280         285
10985 Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile Thr Asn Leu Arg Lys
10986          290         295         300
10988 Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys Leu Arg Gly Met Asn
10989 305         310         315         320
10991 Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile Val Phe Val Thr Phe
10992          325         330         335
10994 Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr Ala Ser Arg Val Phe
10995          340         345         350
10997 Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu Thr Val Thr Leu Phe
10998          355         360         365
11000 Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala Ile Val Ser Ile Arg
11001          370         375         380
11003 Arg Ile Gln Thr Phe Leu Leu Asp Glu Ile Ser Gln Arg Asn Arg
11004 385         390         395         400
11006 Gln Leu Pro Ser Asp Gly Lys Lys Met Val His Val Gln Asp Phe Thr
11007          405         410         415
11009 Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr Leu Gln Gly Leu Ser
11010          420         425         430

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

11012 Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val Val Gly Pro Val Gly
11013      435      440      445
11015 Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu Gly Glu Leu Ala Pro
11016      450      455      460
11018 Ser His Gly Leu Val Ser Val His Gly Arg Ile Ala Tyr Val Ser Gln
11019 465      470      475      480
11021 Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly
11022      485      490      495
11024 Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala
11025      500      505      510
11027 Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile
11028      515      520      525
11030 Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn
11031      530      535      540
11033 Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp
11034 545      550      555      560
11036 Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu Leu
11037      565      570      575
11039 Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val Thr His
11040      580      585      590
11042 Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile Leu Lys Asp
11043      595      600      605
11045 Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe Leu Lys Ser Gly
11046      610      615      620
11048 Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn Glu Glu Ser Glu Gln
11049 625      630      635      640
11051 Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn Arg Thr Phe Ser Glu
11052      645      650      655
11054 Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro Ser Leu Lys Asp Gly
11055      660      665      670
11057 Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro Val Thr Leu Ser Glu
11058      675      680      685
11060 Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln Ala Tyr Lys Asn Tyr
11061      690      695      700
11063 Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile Phe Leu Ile Leu Leu
11064 705      710      715      720
11066 Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln Asp Trp Trp Leu Ser
11067      725      730      735
11069 Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val Thr Val Asn Gly Gly
11070      740      745      750
11072 Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp Tyr Leu Gly Ile Tyr
11073      755      760      765
11075 Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly Ile Ala Arg Ser Leu
11076      770      775      780
11078 Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln Thr Leu His Asn Lys
11079 785      790      795      800
11081 Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu Phe Phe Asp Arg Asn
11082      805      810      815
11084 Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys Asp Ile Gly His Leu

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

11085      820      825      830
11087 Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe Ile Gln Thr Leu Leu
11088      835      840      845
11090 Gln Val Val Gly Val Val Ser Val Ala Val Ala Val Ile Pro Trp Ile
11091      850      855      860
11093 Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe Ile Phe Leu Arg Arg
11094 865      870      875      880
11096 Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg Leu Glu Ser Thr Thr
11097      885      890      895
11099 Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser Leu Gln Gly Leu Trp
11100      900      905      910
11102 Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys Gln Glu Leu Phe Asp
11103      915      920      925
11105 Ala His Gln Asp Leu His Ser Glu Ala Trp Phe Leu Phe Leu Thr Thr
11106      930      935      940
11108 Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile Cys Ala Met Phe Val
11109 945      950      955      960
11111 Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala Lys Thr Leu Asp Ala
11112      965      970      975
11114 Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu Thr Leu Met Gly Met
11115      980      985      990
11117 Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val Glu Asn Met Met Ile
E--> 11118      995      1000      1005
11120 Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu Glu Lys Glu Ala Pro
E--> 11121      1010      1015      1020
11123 Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp Pro His Glu Gly Val
E--> 11124 1025      1030      1035      1040
11126 Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser Pro Gly Gly Pro Leu
E--> 11127      1045      1050      1055
11129 Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser Gln Glu Lys Val Gly
E--> 11130      1060      1065      1070
11132 Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Ile Ser Ala Leu
E--> 11133      1075      1080      1085
11135 Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp Ile Asp Lys Ile Leu
E--> 11136      1090      1095      1100
11138 Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys Lys Met Ser Ile Ile
E--> 11139 1105      1110      1115      1120
11141 Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met Arg Lys Asn Leu Asp
E--> 11142      1125      1130      1135
11144 Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp Asn Ala Leu Gln Glu
E--> 11145      1140      1145      1150
11147 Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro Gly Lys Met Asp Thr
E--> 11148      1155      1160      1165
11150 Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val Gly Gln Arg Gln Leu
E--> 11151      1170      1175      1180
11153 Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn Gln Ile Leu Ile Ile
E--> 11154 1185      1190      1195      1200
11156 Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr Asp Glu Leu Ile Gln
E--> 11157      1205      1210      1215

```

Do not place  
 number under  
 two amino acids.  
 causes invalid  
 count.

Asn ↑ Met  
 ↑ ↑ ↑  
 1005

Gly ↑ Val  
 ↑ ↑ ↑  
 1040

Thr ↑ Thr  
 ↑ ↑ ↑  
 1105  
 refer to p. 4

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
TIME: 12:21:39

Input Set : A:\42716c16.app  
Output Set: N:\CRF3\08252000\I605783.raw

E--> 11159 Lys Lys Ser Gly Arg Asn Leu Pro Thr Ala Pro Cys  
11160 1220 1225

11162 <210> SEQ ID NO: 538  
11163 <211> LENGTH: 3262  
11164 <212> TYPE: PRT  
11165 <213> ORGANISM: Homo sapiens  
11167 <400> SEQUENCE: 538

11168 Met Tyr Ser Val Leu Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu  
11169 5 10 15  
11171 Leu Gln Gly Phe Trp Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala  
11172 20 25 30  
11174 Gln Lys Pro Ser Leu Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser  
11175 35 40 45  
11177 Tyr Leu Val Leu Gly Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val  
11178 50 55 60  
11180 Ile Gln Pro Ile Phe Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr  
11181 65 70 75 80  
11183 Asp Pro Met Asp Ser Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr  
11184 85 90 95  
11186 Val Leu Thr Phe Cys Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr  
11187 100 105 110  
11189 Phe Tyr His Val Gln Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys  
11190 115 120 125  
11192 His Met Ile Tyr Arg Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly  
11193 130 135 140  
11195 Lys Thr Thr Thr Gly Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn  
11196 145 150 155 160  
11198 Lys Phe Asp Gln Val Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro  
11199 165 170 175  
11201 Leu Gln Ala Ile Ala Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile  
11202 180 185 190  
11204 Ser Cys Leu Ala Gly Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln  
11205 195 200 205  
11207 Ser Cys Phe Gly Lys Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr  
11208 210 215 220  
11210 Phe Thr Asp Ala Arg Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile  
11211 225 230 235 240  
11213 Arg Ile Ile Lys Met Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile  
11214 245 250 255  
11216 Thr Asn Leu Arg Lys Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys  
11217 260 265 270  
11219 Leu Arg Gly Met Asn Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile  
11220 275 280 285  
11222 Val Phe Val Thr Phe Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr  
11223 290 295 300  
11225 Ala Ser Arg Val Phe Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu  
11226 305 310 315 320  
11228 Thr Val Thr Leu Phe Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala  
11229 325 330 335

1229 listed  
1228 found

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

11231 Ile Val Ser Ile Arg Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile
11232                               340                               345                               350
11234 Ser Gln Arg Asn Arg Gln Leu Pro Ser Asp Gly Lys Lys Met Val His
11235                               355                               360                               365
11237 Val Gln Asp Phe Thr Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr
11238                               370                               375                               380
11240 Leu Gln Gly Leu Ser Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val
11241 385                               390                               395                               400
11243 Val Gly Pro Val Gly Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu
11244                               405                               410                               415
11246 Gly Glu Leu Ala Pro Ser His Gly Leu Val Ser Val His Gly Arg Ile
11247                               420                               425                               430
11249 Ala Tyr Val Ser Gln Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser
11250                               435                               440                               445
11252 Asn Ile Leu Phe Gly Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val
11253                               450                               455                               460
11255 Ile Lys Ala Cys Ala Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly
11256 465                               470                               475                               480
11258 Asp Leu Thr Val Ile Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln
11259                               485                               490                               495
11261 Lys Ala Arg Val Asn Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile
11262                               500                               505                               510
11264 Tyr Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg
11265                               515                               520                               525
11267 His Leu Phe Glu Leu Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr
11268                               530                               535                               540
11270 Ile Leu Val Thr His Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile
11271 545                               550                               555                               560
11273 Leu Ile Leu Lys Asp Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu
11274                               565                               570                               575
11276 Phe Leu Lys Ser Gly Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn
11277                               580                               585                               590
11279 Glu Glu Ser Glu Gln Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn
11280                               595                               600                               605
11282 Arg Thr Phe Ser Glu Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro
11283                               610                               615                               620
11285 Ser Leu Lys Asp Gly Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro
11286 625                               630                               635                               640
11288 Val Thr Leu Ser Glu Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln
11289                               645                               650                               655
11291 Ala Tyr Lys Asn Tyr Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile
11292                               660                               665                               670
11294 Phe Leu Ile Leu Leu Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln
11295                               675                               680                               685
11297 Asp Trp Trp Leu Ser Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val
11298                               690                               695                               700
11300 Thr Val Asn Gly Gly Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp
11301 705                               710                               715                               720
11303 Tyr Leu Gly Ile Tyr Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

11304          725          730          735
11306 Ile Ala Arg Ser Leu Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln
11307          740          745          750
11309 Thr Leu His Asn Lys Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu
11310          755          760          765
11312 Phe Phe Asp Arg Asn Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys
11313          770          775          780
11315 Asp Ile Gly His Leu Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe
11316 785          790          795          800
11318 Ile Gln Thr Leu Leu Gln Val Val Gly Val Val Ser Val Ala Val Ala
11319          805          810          815
11321 Val Ile Pro Trp Ile Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe
11322          820          825          830
11324 Ile Phe Leu Arg Arg Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg
11325          835          840          845
11327 Leu Glu Ser Thr Thr Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser
11328          850          855          860
11330 Leu Gln Gly Leu Trp Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys
11331 865          870          875          880
11333 Gln Glu Leu Phe Asp Ala His Gln Asp Leu His Ser Glu Ala Trp Phe
11334          885          890          895
11336 Leu Phe Leu Thr Thr Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile
11337          900          905          910
11339 Cys Ala Met Phe Val Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala
11340          915          920          925
11342 Lys Thr Leu Asp Ala Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu
11343          930          935          940
11345 Thr Leu Met Gly Met Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val
11346 945          950          955          960
11348 Glu Asn Met Met Ile Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu
11349          965          970          975
11351 Glu Lys Glu Ala Pro Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp
11352          980          985          990
11354 Pro His Glu Gly Val Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser
E--> 11355          995          1000          1005
11357 Pro Gly Gly Pro Leu Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser
E--> 11358          1010          1015          1020
11360 Gln Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser
E--> 11361 1025          1030          1035          1040
11363 Leu Ile Ser Ala Leu Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp
E--> 11364          1045          1050          1055
11366 Ile Asp Lys Ile Leu Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys
E--> 11367          1060          1065          1070
11369 Lys Met Ser Ile Ile Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met
E--> 11370          1075          1080          1085
11372 Arg Lys Asn Leu Asp Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp
E--> 11373          1090          1095          1100
11375 Asn Ala Leu Gln Glu Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro
E--> 11376 1105          1110          1115          1120

```

refer to  
 p. 4

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783  
 DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

11378 Gly Lys Met Asp Thr Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val  
 E--> 11379 1125 1130 1135  
 11381 Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn  
 E--> 11382 1140 1145 1150  
 11384 Gln Ile Leu Ile Ile Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr  
 E--> 11385 1155 1160 1165  
 11387 Asp Glu Leu Ile Gln Lys Lys Ile Arg Glu Lys Phe Ala His Cys Thr  
 E--> 11388 1170 1175 1180  
 11390 Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Ile Asp Ser Asp Lys  
 E--> 11391 1185 1190 1195 1200  
 11393 Ile Met Val Leu Asp Ser Gly Arg Leu Lys Glu Tyr Asp Glu Pro Tyr  
 E--> 11394 1205 1210 1215  
 11396 Val Leu Leu Gln Asn Lys Glu Ser Leu Phe Tyr Lys Met Val Gln Gln  
 E--> 11397 1220 1225 1230  
 11399 Leu Gly Lys Ala Glu Ala Ala Ala Leu Thr Glu Thr Ala Lys Gln Arg  
 E--> 11400 1235 1240 1245  
 11402 Trp Gly Phe Thr Met Leu Ala Arg Leu Val Ser Asn Ser 1260  
 E--> 11403 1250 1255  
 11553 <210> SEQ ID NO: 551  
 11554 <211> LENGTH: 15  
 11555 <212> TYPE: PRT  
 11556 <213> ORGANISM: Artificial Sequence  
 11558 <220> FEATURE:  
 11559 <223> OTHER INFORMATION: Made in a lab  
 11561 <400> SEQUENCE: 551  
 E--> 11562 Phe Asp Lys Ser Asp Leu Ala Lys Tyr Ser Ala  
 12135 <210> SEQ ID NO: 574  
 12136 <211> LENGTH: 63  
 12137 <212> TYPE: PRT  
 12138 <213> ORGANISM: Homo sapiens  
 12140 <400> SEQUENCE: 574  
 12141 Met Thr His Ser Ser Ala Trp Leu Glu Arg Pro Gln Glu Thr Tyr Asn  
 12142 5 10 15  
 12144 His Gly Gly Arg Arg Arg Gly Ser Lys Ala Arg Leu Thr Trp Trp Gln  
 12145 20 25 30  
 12147 Glu Arg Thr Ser Glu Gly Gly Asp Cys His Lys Leu Phe Phe Phe Glu  
 12148 35 40 45  
 12150 Thr Arg Val Trp Pro Cys Cys Pro Gly Trp Ser Ala Val Ala  
 E--> 12151 50 55 60  
 12154 <210> SEQ ID NO: 575  
 12155 <211> LENGTH: 77  
 12156 <212> TYPE: PRT  
 12157 <213> ORGANISM: Homo sapiens  
 12159 <400> SEQUENCE: 575  
 12160 Met Val Lys Ser Arg Phe Thr Lys Asn Thr Lys Ile Thr Gln Ala Trp  
 12161 5 10 15  
 12163 Trp Arg Ala Pro Val Ile Pro Gly Thr Arg Glu Ala Glu Gly Gly Glu  
 12164 20 25 30  
 12166 Ser Leu Glu Pro Gly Arg Leu Arg Glu Glu Asn Arg Leu Asn Pro Gly

1262 listed  
 1261 found

more specific source of  
 artificial sequence needed.

15 listed  
 11 found

63 listed  
 62 found

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783  
 DATE: 08/25/2000  
 TIME: 12:21:39

Input Set : A:\42716c16.app  
 Output Set : N:\CRF3\08252000\I605783.raw

12167 35 40 45  
 12169 Gly Arg Gly Cys Ser Glu Pro Arg Ser Cys Cys Thr Pro Ala Trp  
 12170 50 55 60  
 12172 Ser Thr Glu Gln Asp Ser Ala Ser Lys Thr Asn Lys  
 E--> 12173 65 70 75  
 12176 <210> SEQ ID NO: 576  
 12177 <211> LENGTH: 69  
 12178 <212> TYPE: PRT  
 12179 <213> ORGANISM: Homo sapiens  
 12181 <220> FEATURE:  
 12182 <221> NAME/KEY: unsure  
 12183 <222> LOCATION: (42)  
 12184 <223> OTHER INFORMATION: Xaa = Any Amino Acid  
 12186 <400> SEQUENCE: 576  
 12187 Met Leu Gly Lys Ser Arg Ala Val Cys Leu Pro Ser Thr Thr Val Thr  
 12188 5 10 15  
 12190 Thr Val Cys Tyr Leu Ala Ser Ser Ser Ala Ser Arg Glu Thr Ala Thr  
 12191 20 25 30  
 OK W--> 12193 Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa Ser Lys Cys His Ala Gln  
 12194 35 40 45  
 12196 Leu Leu Phe Thr Phe Tyr Leu Asn His Phe Tyr Gln Ile Arg Leu Asn  
 12197 50 55 60  
 12199 Pro Gly Tyr Ser  
 E--> 12200 65  
 12203 <210> SEQ ID NO: 577  
 12204 <211> LENGTH: 58  
 12205 <212> TYPE: PRT  
 12206 <213> ORGANISM: Homo sapiens  
 12208 <400> SEQUENCE: 577  
 12209 Met Tyr Leu Glu Asn Ser Phe Tyr Cys Gln Met Ile Leu Leu Lys Arg  
 12210 5 10 15  
 12212 Cys Arg Leu Ser Lys Ile Ser Thr Gln Arg Val Val Pro Asp Gly Pro  
 12213 20 25 30  
 12215 Pro Ala Pro Val Pro Gly Ser Phe Pro Met Phe Pro Arg Phe Gly Phe  
 12216 35 40 45  
 12218 Arg Leu Ala Pro Pro Ala Asp Thr Pro  
 E--> 12219 50 55  
 12222 <210> SEQ ID NO: 578  
 12223 <211> LENGTH: 52  
 12224 <212> TYPE: PRT  
 12225 <213> ORGANISM: Homo sapiens  
 12227 <400> SEQUENCE: 578  
 12228 Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu Leu Tyr Ile Arg His  
 12229 5 10 15  
 12231 His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr Lys Lys Leu Asn Tyr  
 12232 20 25 30  
 12234 Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His Ile Ala Lys Val Tyr  
 12235 35 40 45  
 12237 Gln Pro His

77 listed  
 76 found

69 listed  
 68 found

58 listed  
 57 found

52 listed  
 51 found



RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783  
 DATE: 08/25/2000  
 TIME: 12:21:40

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

E--> 12238 50  
 12241 <210> SEQ ID NO: 579  
 12242 <211> LENGTH: 57  
 12243 <212> TYPE: PRT  
 12244 <213> ORGANISM: Homo sapiens  
 12246 <400> SEQUENCE: 579  
 12247 Met His Phe Thr Phe Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu  
 12248 5 10 15  
 12250 Leu Tyr Ile Arg His His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr  
 12251 20 25 30  
 12253 Lys Lys Leu Asn Tyr Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His  
 12254 35 40 45  
 12256 Ile Ala Lys Val Tyr Gln Pro His  
 E--> 12257 50 55  
 15023 <210> SEQ ID NO: 701  
 15024 <211> LENGTH: 3228  
 15025 <212> TYPE: DNA  
 15026 <213> ORGANISM: Homo sapien  
 15028 <220> FEATURE:  
 15029 <221> NAME/KEY: misc\_feature  
 15030 <222> LOCATION: (1)...(3228)  
 15031 <223> OTHER INFORMATION: n = A,T,C or G  
 15033 <400> SEQUENCE: 701  
 E--> 15034  
 tccgccccat tgacgcaaat ggcggtaggc gtgtacgggt ggaggtctat ataagcagag 60aactagagaa cccactgctt actggcttat cga:  
 E--> 15035 ataggagagac ccaagctggc tagcgtttaa acttaagctt ggtaccgagc tcggatccac 180  
 E--> 15036 tagtccagtg tgggtgaatt ccattgtgtt gggcaggaaa caagcaaatg ggtggagcag 240  
 E--> 15037 caagtcaggt gatgtggagc ccagagggtc gggatggctg tctctctagg gtccacttgc 300  
 E--> 15038 ccttggtgaga cactttatcc cagcacttta ggaatactga ggtcattacca gccacatctt 360  
 E--> 15039 atatgcaaga ttgcccagca gagatcaggt ccgagagtgc cctttttaaa aaaaggagac 420  
 E--> 15040 ttgcttaata aaagaagtct agccacgttt gtgtagagcg gctgtgctgt gctggggggtt 480  
 E--> 15041 cacttttgag agagttctcc tctgagacct gatctctgga ggctgggcaa tcttgcaatt 540  
 E--> 15042 gagatggggc tgggtctgat tcagcactcc ttagtctgct cgcctctccc atggccccag 600  
 E--> 15043 cctggccaca cctgcttacg gggcactctt agatgcccac accataactt ccagtctagt 660  
 E--> 15044 ggactgtacc atatcagtggt agagctgcag caaggtggcc cctagagcca cgcaccagcc 720  
 E--> 15045 tgcacattgc ctctccatac ggcagccctt tatttggaaa ctctctaaat cactttgctg 780  
 E--> 15046 tgtgtgttta cacgggtgtg ttttgcctta ctgcccctga gagcacacgg gagtgcagca 840  
 E--> 15047 cacaccccaa cccacatcaa ctgcccattaa agaaaagaaa ttccagccca gaatttcatg 900  
 E--> 15048 tccagcaaaa ttaagcatca taagtgaagg agaaataaga tccttttcag acaagcaagt 960  
 E--> 15049 gctgagggaa tttggtatca ccagatctac cttacgagag ctctgaagg aagcactaaa 1020  
 E--> 15050 tatggaagaa aaagatcatc acctgtactt acaaaaacac actgaagtac acagtccaat 1080  
 E--> 15051 gatgtataaa agcaagcaca tatgtaagtc tgcaaaaata ccagctgaca gcatgacgac 1140  
 E--> 15052 aggataaaat ccacacatac cattactaac cttaaatgta aatgggctaa atgctcccat 1200  
 E--> 15053 tgaaagacac ggggcaagct gggtaaaaga ccaagaccca ctggagtatg ccgtcttcaa 1260  
 E--> 15054 gcaaccctac tcacgtgcag tgccatacat aggtcctaaa taagggaatg gagaaaaata 1320  
 E--> 15055 tttcaagcaa atggaaaaca gaaaaaagggt gttgcactcc cagtttctga caaacagac 1380  
 E--> 15056 tctaccaata aagataaaaa aagagaagga cattacaaag gtggtcctga ccttgataa 1440  
 E--> 15057 atctcattat tgcttgatac caacctgggc tatttgtatt gcccaaacga ataggataat 1500  
 E--> 15058 ttgctgaggt tgtggagctt ctccccttca cagatgccct gatctccgaa aatttggtt 1560  
 E--> 15059 agatgtaagg ttgattttgc tgtacaactc cttttttgaa gttttaacta tttccaacaa 1620

57 listed  
 56 found

Hard return here

possible  
 "wrapped  
 nucleics"  
 See #1 on  
 Error Summary  
 Sheet

also, maybe  
 exceeded  
 allowable #  
 of spaces per  
 line. (72)

RAW SEQUENCE LISTING      DATE: 08/25/2000  
 PATENT APPLICATION: US/09/605,783      TIME: 12:21:40

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

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E--> 15060 ggaaggcaag ttttctgct tccattgaca aaggagagca ggcacctect ttctgagtt 1680
E--> 15061 tcagcttgct tctgacaggg aaggagcttt gagatttgaa tactggcctg ctgggttttg 1740
E--> 15062 gacgtgcatt gggcctgttg tcccatttgt gttatttttc tgggaaattt cttccctttg 1800
E--> 15063 gagtgagaaa gcttacccaa tgcctgtacc atcatcgta cttaaaagaa ctccatttta 1860
E--> 15064 agttcaggga ctccttgga gaagagaccg tagccttgta tcagatcata aaggagaaga 1920
E--> 15065 gcaagaggtc cccggcaaac atccacagat ggccttgga ataagtcacc ttgctcacc 1980
E--> 15066 tgcaggaatg ccagtgaact tattgtgac atcttgagc tcagtacct catagtgtaa 2040
E--> 15067 cggcgtcagc agatgtgct gtgctgggac ttctgtact accattctct gaggggcat 2100
E--> 15068 gcttctgagc ggcctgtgac ttggtgcaca acttcagaca ccatcatctt gcagcagcac 2160
E--> 15069 cgcaccctca ctagccaggg tgttgatgac ttctcaagg ccaagggcac attcaaggct 2220
E--> 15070 tcggacttca ttgatgcct tgtgctgagc aagggtgctt ctccgggac ttaattcagg 2280
E--> 15071 aggtagaatg gagcttgaga tcaagtgtct gatcaagcct cagtgtatgg gcgctgttca 2340
E--> 15072 tcntctggtg ctgaagcagc caagagacc aagctgcct ggcctgctct taggatatga 2400
E--> 15073 cagcagagcc agtggcctct actagatcct gtacaacctc acaaacacc cagacatcgg 2460
E--> 15074 gagtgcctgc agcctgtgat gcaagagtc taatcctgaa gacattgaat gacctgtcat 2520
E--> 15075 tctgctgttt ttaccaaaaa ggatcatgag gatcagagag gaaaagtcac ttgcccaaag 2580
E--> 15076 tcacacagct gaacagtggt ggagtccaac ttgaccgtg ggcgtgtctga cccaagggtg 2640
E--> 15077 tatgcttgct tctctcccaa gagacaactt tcttatcagg ctcaaatgaa tgaaaggagg 2700
E--> 15078 atgttaaagg taggatctct gaagcctgtg ccagtggaa cgcagctcat ggctggcacc 2760
E--> 15079 tgtgttctca ttcttacctc attaagagta aagtttattg agtttattga atttaagtat 2820
E--> 15080 ctttagtgag atcatatatt attagtaaga actgggacca aacagatttt ctgactctaa 2880
E--> 15081 aagagagatt ttcacagaaa cagatatata cctgtaagta tacagacacg catacacaca 2940
E--> 15082 tttctttact gctcataaaa attagtcctt attagaatgt gggatgtata aatgtaagag 3000
E--> 15083 aattttcatg ttaaaattga cagatacatt tttaaattgt cctaaaaata atttaattat 3060
E--> 15084 tttnttttta gaattttcca ttattaatgt tatttttatg agaaactata taactttatt 3120
E--> 15085 gataatacat acaataaccc ttgtttttc aaattgaaaa tacagtgtat ttgcaaata 3180
E--> 15086 actaagtcct aattttgtat taaaatttta aattttcaaa aaaaaaaa 3228

```

17350 <210> SEQ ID NO: 778

17351 <211> LENGTH: 1095

17352 <212> TYPE: PRT

17353 <213> ORGANISM: Homo sapiens

17355 <400> SEQUENCE: 778

```

17356 Met Arg Asn Arg Arg Asn Asp Thr Leu Asp Ser Thr Arg Thr Leu Tyr
17357                               5              10              15
17359 Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
17360                               20              25              30
17362 Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
17363                               35              40              45
17365 Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
17366                               50              55              60
17368 Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
17369                               65              70              75              80
17371 Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
17372                               85              90              95
17374 Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
17375                               100             105             110
17377 Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
17378                               115             120             125
17380 His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:40

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

17381      130      135      140
17383 Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
17384 145      150      155      160
17386 Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
17387      165      170      175
17389 Tyr Gly Leu Thr Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
17390      180      185      190
17392 Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
17393      195      200      205
17395 Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
17396      210      215      220
17398 Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
17399 225      230      235      240
17401 Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
17402      245      250      255
17404 Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
17405      260      265      270
17407 Glu Lys His Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
17408      275      280      285
17410 Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu
17411      290      295      300
17413 Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
17414 305      310      315      320
17416 Glu Gly Ser Gly Arg Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
17417      325      330      335
17419 Glu Asp Ala Pro Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
17420      340      345      350
17422 Leu Pro Arg Thr Val Ser Arg Leu Ser Glu Glu Glu Thr Glu Ser Trp
17423      355      360      365
17425 Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
17426      370      375      380
17428 Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
17429 385      390      395      400
17431 Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
17432      405      410      415
17434 Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
17435      420      425      430
17437 Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
17438      435      440      445
17440 Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
17441      450      455      460
17443 Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
17444 465      470      475      480
17446 His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
17447      485      490      495
17449 Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
17450      500      505      510
17452 Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
17453      515      520      525

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000

TIME: 12:21:40

Input Set : A:\42716c16.app

Output Set: N:\CRF3\08252000\I605783.raw

```

17455 Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
17456      530      535      540
17458 Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
17459 545      550      555      560
17461 Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
17462      565      570      575
17464 Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
17465      580      585      590
17467 Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
17468      595      600      605
17470 Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
17471      610      615      620
17473 Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
17474 625      630      635      640
17476 Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
17477      645      650      655
17479 Gln His Phe Thr Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
17480      660      665      670
17482 Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu
17483      675      680      685
17485 Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg
17486      690      695      700
17488 Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala
17489 705      710      715      720
17491 Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr
17492      725      730      735
17494 Ile Ala Phe Leu Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His
17495      740      745      750
17497 Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val
17498      755      760      765
17500 Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr
17501      770      775      780
17503 Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe
17504 785      790      795      800
17506 Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu
17507      805      810      815
17509 Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu
17510      820      825      830
17512 Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile
17513      835      840      845
17515 Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Phe Leu Phe Leu
17516      850      855      860
17518 Phe Ala Val Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu
17519 865      870      875      880
17521 Arg Gln Asn Glu Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr
17522      885      890      895
17524 Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly
17525      900      905      910
17527 Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000

TIME: 12:21:40

Input Set : A:\42716c16.app

Output Set: N:\CRF3\08252000\I605783.raw

```

17528      915      920      925
17530 Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
17531      930      935      940
17533 Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
17534 945      950      955      960
17536 Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
17537      965      970      975
17539 Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
17540      980      985      990
17542 Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
E--> 17543      995      1000      1005
17545 Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
E--> 17546      1010      1015      1020
17548 Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
E--> 17549 1025      1030      1035      1040
17551 Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
E--> 17552      1045      1050      1055
17554 Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
E--> 17555      1060      1065      1070
17557 Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
E--> 17558      1075      1080      1085
17560 Glu Ile Ala Asn Lys Ile Lys
17561      1090      1095
17633 <210> SEQ ID NO: 780
17634 <211> LENGTH: 1095
17635 <212> TYPE: PRT
17636 <213> ORGANISM: Homo sapiens
17638 <220> FEATURE:
17639 <221> NAME/KEY: VARIANT
17640 <222> LOCATION: (1)...(1095)
17641 <223> OTHER INFORMATION: Xaa = Any Amino Acid
17643 <400> SEQUENCE: 780
17644 Met Arg Asn Arg Arg Asn Asp Thr Leu Asp Ser Thr Arg Thr Leu Tyr
17645      5      10      15
17647 Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
17648      20      25      30
17650 Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
17651      35      40      45
17653 Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
17654      50      55      60
17656 Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
17657 65      70      75      80
17659 Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
17660      85      90      95
17662 Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
17663      100      105      110
17665 Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
17666      115      120      125
17668 His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys

```

refer to  
p. 4  
misaligned  
numbering.

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:40

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

17669      130      135      140
17671 Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
17672 145      150      155      160
17674 Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
17675      165      170      175
17677 Tyr Gly Leu Met Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
17678      180      185      190
17680 Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
17681      195      200      205
17683 Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
17684      210      215      220
17686 Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
17687 225      230      235      240
17689 Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
17690      245      250      255
17692 Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
17693      260      265      270
17695 Glu Lys Tyr Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
17696      275      280      285
17698 Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu
17699      290      295      300
17701 Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
17702 305      310      315      320
17704 Glu Gly Ser Gly Gln Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
17705      325      330      335
17707 Glu Asp Ala Leu Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
17708      340      345      350
17710 Leu Pro Arg Thr Val Ser Arg Leu Pro Glu Glu Glu Thr Glu Ser Trp
17711      355      360      365
17713 Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
17714      370      375      380
17716 Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
17717 385      390      395      400
17719 Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
17720      405      410      415
17722 Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
17723      420      425      430
17725 Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
17726      435      440      445
17728 Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
17729      450      455      460
17731 Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
17732 465      470      475      480
17734 His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
17735      485      490      495
17737 Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
17738      500      505      510
17740 Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
17741      515      520      525

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:40

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

17743 Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val  
 17744 530 535 540  
 17746 Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile  
 17747 545 550 555 560  
 17749 Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg  
 17750 565 570 575  
 17752 Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu  
 17753 580 585 590  
 17755 Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu  
 17756 595 600 605  
 17758 Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr  
 17759 610 615 620  
 17761 Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu  
 17762 625 630 635 640  
 17764 Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp  
 17765 645 650 655  
 17767 Gln His Phe Ile Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln  
 17768 660 665 670  
 17770 Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu  
 17771 675 680 685  
 17773 Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg  
 17774 690 695 700  
 17776 Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala  
 17777 705 710 715 720  
 17779 Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr  
 17780 725 730 735  
 17782 Ile Ala Phe Leu Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His  
 17783 740 745 750  
 17785 Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val  
 17786 755 760 765  
 17788 Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr  
 17789 770 775 780  
 17791 Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe  
 17792 785 790 795 800  
 17794 Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu  
 17795 805 810 815  
 17797 Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu  
 17798 820 825 830  
 17800 Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile  
 17801 835 840 845  
 17803 Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Phe Leu Phe Leu  
 17804 850 855 860  
 17806 Phe Ala Xaa Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu  
 17807 865 870 875 880  
 17809 Arg Gln Asn Glu Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr  
 17810 885 890 895  
 17812 Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly  
 17813 900 905 910  
 17815 Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys

OK  
 W-->

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/605,783

DATE: 08/25/2000  
 TIME: 12:21:40

Input Set : A:\42716c16.app  
 Output Set: N:\CRF3\08252000\I605783.raw

```

17816      915      920      925
17818 Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
17819      930      935      940
17821 Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
17822 945      950      955      960
17824 Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
17825      965      970      975
17827 Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
17828      980      985      990
17830 Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
E--> 17831      995      1000      1005
17833 Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
E--> 17834      1010      1015      1020
17836 Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
E--> 17837 1025      1030      1035      1040
17839 Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
E--> 17840      1045      1050      1055
17842 Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
E--> 17843      1060      1065      1070
17845 Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
E--> 17846      1075      1080      1085
17848 Glu Ile Ala Asn Lys Ile Lys
17849      1090      1095
18665 <210> SEQ ID NO: 832
18666 <211> LENGTH: 27
18667 <212> TYPE: DNA
18668 <213> ORGANISM: Artificial Sequence
18670 <220> FEATURE:
18671 <223> OTHER INFORMATION: PCR primer
E--> 18673 <400> SEQUENCE (831)
18674 gttgaattca tgcaaggcc ccaggtg
  
```

refer to  
 p. 4  
 misaligned  
 numbering

should be 27  
 832

← F.Y.I.

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.



## VERIFICATION SUMMARY

DATE: 08/25/2000

PATENT APPLICATION: US/09/605,783

TIME: 12:21:42

Input Set : A:\42716c16.app

Output Set: N:\CRF3\08252000\I605783.raw

L:26 M:270 C: Current Application Number differs, Wrong Format  
L:27 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:55 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:80 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

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L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:699 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3  
L:1470 M:283 W: Missing Blank Line separator, <400> field identifier  
L:7338 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:378  
M:332 Repeated in SeqNo=378  
L:7714 M:252 E: No. of Seq. differs, <211>LENGTH:Input:155 Found:154 SEQ:383  
L:9546 M:252 E: No. of Seq. differs, <211>LENGTH:Input:141 Found:140 SEQ:477  
L:9580 M:252 E: No. of Seq. differs, <211>LENGTH:Input:144 Found:143 SEQ:478  
L:9629 M:252 E: No. of Seq. differs, <211>LENGTH:Input:223 Found:222 SEQ:479  
L:9663 M:252 E: No. of Seq. differs, <211>LENGTH:Input:145 Found:144 SEQ:480  
L:9706 M:252 E: No. of Seq. differs, <211>LENGTH:Input:168 Found:167 SEQ:481  
L:9740 M:252 E: No. of Seq. differs, <211>LENGTH:Input:144 Found:143 SEQ:482  
L:9774 M:252 E: No. of Seq. differs, <211>LENGTH:Input:144 Found:143 SEQ:483  
L:10021 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502  
L:10021 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502  
L:10021 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502  
L:10021 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502  
L:10021 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:502  
L:10022 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502  
L:10022 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502  
L:10022 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502  
L:10022 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502  
M:340 Repeated in SeqNo=502  
L:10023 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502  
L:10023 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502  
L:10023 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502  
L:10023 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502  
L:10024 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502  
L:10024 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502  
L:10024 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502  
L:10024 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502  
L:10026 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502  
L:10026 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502  
L:10026 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502  
L:10026 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502  
L:10034 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503  
L:10034 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503  
L:10034 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503  
L:10034 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503  
L:10034 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:503  
L:10035 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503  
L:10035 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503  
L:10035 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503  
L:10035 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503  
M:340 Repeated in SeqNo=503  
L:10036 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503

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L:10036 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503  
L:10036 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503  
L:10036 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503  
L:10038 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503  
L:10038 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503  
L:10038 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503  
L:10038 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503  
L:10039 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503  
L:10039 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503  
L:10039 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503  
L:10039 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503  
L:10040 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503  
L:10040 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503  
L:10040 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503  
L:10040 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503  
L:10110 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:508  
L:10110 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:508  
L:10110 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:508  
L:10110 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:508  
L:10110 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:508  
L:10324 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:523  
L:10324 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:523  
L:10324 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:523  
L:10331 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:523  
L:10390 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:525  
L:10480 M:252 E: No. of Seq. differs, <211>LENGTH:Input:321 Found:320 SEQ:527  
L:10619 M:252 E: No. of Seq. differs, <211>LENGTH:Input:293 Found:292 SEQ:532  
L:10698 M:252 E: No. of Seq. differs, <211>LENGTH:Input:267 Found:266 SEQ:534  
L:11118 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:537  
M:332 Repeated in SeqNo=537  
L:11160 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1229 Found:1228 SEQ:537  
L:11355 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:538  
M:332 Repeated in SeqNo=538  
L:11403 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1262 Found:1261 SEQ:538  
L:11562 M:252 E: No. of Seq. differs, <211>LENGTH:Input:15 Found:11 SEQ:551  
L:12151 M:252 E: No. of Seq. differs, <211>LENGTH:Input:63 Found:62 SEQ:574  
L:12173 M:252 E: No. of Seq. differs, <211>LENGTH:Input:77 Found:76 SEQ:575  
L:12200 M:252 E: No. of Seq. differs, <211>LENGTH:Input:69 Found:68 SEQ:576  
L:12219 M:252 E: No. of Seq. differs, <211>LENGTH:Input:58 Found:57 SEQ:577  
L:12238 M:252 E: No. of Seq. differs, <211>LENGTH:Input:52 Found:51 SEQ:578  
L:12257 M:252 E: No. of Seq. differs, <211>LENGTH:Input:57 Found:56 SEQ:579  
L:12279 M:252 E: No. of Seq. differs, <211>LENGTH:Input:68 Found:67 SEQ:580  
L:12301 M:252 E: No. of Seq. differs, <211>LENGTH:Input:78 Found:77 SEQ:581  
L:12320 M:252 E: No. of Seq. differs, <211>LENGTH:Input:52 Found:51 SEQ:582  
L:12339 M:252 E: No. of Seq. differs, <211>LENGTH:Input:61 Found:60 SEQ:583  
L:12361 M:252 E: No. of Seq. differs, <211>LENGTH:Input:77 Found:76 SEQ:584  
L:12380 M:252 E: No. of Seq. differs, <211>LENGTH:Input:51 Found:50 SEQ:585  
L:12399 M:252 E: No. of Seq. differs, <211>LENGTH:Input:61 Found:60 SEQ:586  
L:15034 M:254 E: No. of Bases conflict, LENGTH:Input:120 Counted:110 SEQ:701

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L:15034 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:2  
M:254 Repeated in SeqNo=701  
L:15086 M:252 E: No. of Seq. differs, <211>LENGTH:Input:3228 Found:3218 SEQ:701  
L:17543 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:778  
M:332 Repeated in SeqNo=778  
L:17831 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:780  
M:332 Repeated in SeqNo=780  
L:18182 M:252 E: No. of Seq. differs, <211>LENGTH:Input:0 Found:29 SEQ:816  
L:18352 M:252 E: No. of Seq. differs, <211>LENGTH:Input:653 Found:652 SEQ:818  
L:18511 M:252 E: No. of Seq. differs, <211>LENGTH:Input:225 Found:224 SEQ:825  
L:18590 M:252 E: No. of Seq. differs, <211>LENGTH:Input:358 Found:357 SEQ:826  
L:18615 M:252 E: No. of Seq. differs, <211>LENGTH:Input:97 Found:96 SEQ:827  
L:18673 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:832 differs:831  
L:18773 M:252 E: No. of Seq. differs, <211>LENGTH:Input:305 Found:304 SEQ:835